

## IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A process for the contemporaneous preparation of middle distillates and lubricating bases starting from a feedstock comprising a mix of prevalently paraffinic hydrocarbons obtained by means of a synthesis process from hydrogen and carbon monoxide, consisting ~~[[for]]~~ of at least 30%, ~~preferably at least 50%~~, of a high-boiling fraction with a distillation temperature higher than 360°C, comprising:

(i) at least one hydrocracking step, wherein said hydrocarbon mix is reacted with hydrogen at a temperature of between 200 and 450°C and a pressure of between 0.5 and 15 MPa, in the presence of a catalyst, for a time sufficient for converting at least 40% of said high-boiling fraction, into a fraction of hydrocarbons which can be distilled at temperatures lower than 360°C;

(ii) at least one distillation step of the product of step (i) for separating at least a fraction of middle distillate and at least one high-boiling residue suitable for producing a lubricating base with an initial boiling point equal to or higher than 340°C, ~~characterized in that~~ wherein said hydrocracking step (i) is effected in the presence of a supported catalyst comprising:

(A) a support of an acidic nature consisting of a catalytically active porous solid, including silicon, aluminum, phosphorus and oxygen bonded to one another in such a way as to form a mixed amorphous solid forming a single phase, characterized by an Si/Al atomic ratio of between 15 and 250, a P/Al ratio of at least 0.1, but lower than 5, a total pore volume ranging from 0.5 to 2.0 ml/g, an average pore diameter ranging from 3 nm to 40 nm, and a specific surface area ranging from 200 to 1000 m<sup>2</sup>/g;

(B) at least one metal with a hydro-dehydrogenating activity selected from groups 6 to 10 of the periodic table of elements, dispersed on said support (A) in an amount of between 0.05 and 5% by weight with respect to the total weight of the catalyst.

Claim 2 (Original): The process according to claim 1, wherein said active support of the catalyst has a total pore volume of between 0.7 and 1.7 ml/g, a surface area of between 300 and 900 m<sup>2</sup>/g and an average pore diameter of between 5 and 30 nm, an Si/Al ratio ranging from 20 to 200 and a P/Al ratio ranging from 0.3 to 3.5.

Claim 3 (Currently Amended): The process according to ~~any of claims 1 and 2~~ claim 1, wherein the difference between 10% and 90% in the distribution curve of the pore dimensions of said active support of the catalyst, is included within a diameter range of between 2 and 40 nm.

Claim 4 (Currently Amended): The process according to ~~any of the previous claims~~ claim 1, wherein said catalyst ~~includes~~ comprises, in addition to said active support (A), ~~preferably in a mix therewith~~, a binder consisting of an inert inorganic solid.

Claim 5 (Currently Amended): The process according to ~~the previous~~ claim 4, wherein said inert binder is selected from the group consisting of silica, alumina, clay, titanium oxide (TiO<sub>2</sub>) or zirconium oxide (ZrO<sub>2</sub>), boron oxide (B<sub>2</sub>O<sub>3</sub>) ~~[[or]]~~ and mixtures thereof.

Claim 6 (Currently Amended): The process according to ~~any of the previous claims 4 or 5~~ claim 4, wherein said binder is in an amount of 1 to 70% by weight, ~~preferably 20 to~~

~~50% by weight~~, with respect to the weight of said inert binder and said amorphous support (A).

Claim 7 (Currently Amended): The process according to ~~any of the previous claims 4 to 6~~ claim 4, wherein said catalyst is in the form of pellets having dimensions of around 2-5 mm in diameter and 2-10 mm in length.

Claim 8 (Currently Amended): The process according to ~~any of the previous claims claim 1~~, wherein said metal in component (B) of the catalyst is selected from the group consisting of nickel, molybdenum, tungsten, cobalt, platinum, palladium and mixtures thereof, ~~preferably platinum and palladium~~.

Claim 9 (Currently Amended): The process according to ~~any of the previous claims claim 1~~, wherein the concentration of said metal having a hydro-dehydrogenating activity ranges from 0.2 to 1% by weight with respect to the total weight of said catalyst.

Claim 10 (Currently Amended): The process according to ~~any of the previous claims claim 1~~, wherein said feeding mix comprises a synthesis product of the Fischer-Tropsch type.

Claim 11 (Currently Amended): The process according to ~~any of the previous claims claim 1~~, wherein at least 80% by weight of said hydrocarbon mix consists of paraffins.

Claim 12 (Currently Amended): The process according to ~~any of the previous claims claim 1~~, wherein said feeding mix consists for at least 80% by weight of linear paraffins

having from 5 to 80 carbon atoms and an initial boiling point of between 45 and 675°C (by extrapolation).

Claim 13 (Currently Amended): The process according to ~~any of the previous claims 1 to 11~~ claim 1, wherein said feeding mix comprises from 40 to 80% by weight of a high-boiling fraction which can be distilled at temperatures  $\geq 360^{\circ}\text{C}$  and from 20 to 60% by weight of middle distillate.

Claim 14 (Currently Amended): The process according to ~~any of the previous claims 1 to 11~~ claim 1, wherein said feeding mix has an initial boiling point of at least  $260^{\circ}\text{C}$ .

Claim 15 (Currently Amended): The process according to ~~any of the previous claims 1 to 11~~ claim 1, wherein said hydrocracking step (i) is run at a temperature of between 300 and  $370^{\circ}\text{C}$  and at a pressure of between 1 and 10 MPa, including the hydrogen pressure.

Claim 16 (Currently Amended): The process according to ~~any of the previous claims 1 to 11~~ claim 1, wherein said hydrocracking step (i) is effected with an initial (hydrogen) / (hydrocarbons) mass ratio of between 0.03 and 0.2.

Claim 17 (Currently Amended): The process according to ~~any of the previous claims 1 to 11~~ claim 1, wherein the  $\alpha$  conversion in said hydrocracking step (i) ranges from 60 to 90%; ~~preferably from 65 to 80%.~~

Claim 18 (Currently Amended): The process according to ~~any of the previous claims~~ claim 1, wherein an aliquot of said high-boiling residue obtained in said step (ii) is recycled to the hydrocracking step (i).

Claim 19 (Currently Amended): The process according to ~~any of the previous claims~~ claim 1, wherein said high-boiling residue used for the production of lubricating bases is subjected to a de-waxing treatment.

Claim 20 (Original): The process according to claim 19, wherein said dewaxing step consists of a catalytic dewaxing.

Claim 21 (Currently Amended): The process according to ~~any of the previous claims~~ claim 1, comprising, in addition, a hydrogenating treatment of the feed to said hydrocracking step (i).

Claim 22 (Currently Amended): The process according to ~~any of the previous claims~~ claim 1, wherein, before the hydrocracking step, a light fraction having a final boiling point lower than 380°C, ~~preferably between 260 and 360°C~~, is separated from said feed, by distillation, before the hydrocracking step.

Claim 23 (Original): The process according to claim 22, wherein said light fraction is subjected to a hydroisomerization treatment in the presence of a suitable bi-functional catalyst with a hydro dehydrogenating activity to obtain an isomerized mix.

Claim 24 (Original): The process according to claim 23, wherein said light fraction is subjected to a hydrogenating treatment, before the hydro-isomerization treatment.

Claim 25 (Currently Amended): The process according to ~~any of the previous claims 22 to 24~~ claim 22, wherein said light fraction or a product obtained therefrom, is joined to at least a part, ~~preferably all~~, of said fraction of middle distillate obtained in step (ii) and sent to a fractionation step for the production of at least one fraction of middle distillate, ~~preferably gas oil~~.